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ABSTRACT

This article summarizes and discusses some of the studies which relate parental attributes to children's achievement orientations, that is, both achievement motivation and achievement behavior. The warmth-hostility dimension is one of two main parental dimensions which have continually arisen in factor analyses of child rearing patterns. The other major dimension, that of permissiveness-restrictiveness, is considered in this paper only in relation to the warmth-hostility dimension. The paper includes a review of the major theories of achievement motivation and behavior, a description of the two main parental dimensions, and summaries of achievement studies related to the Warmth-Hostility dimension. The paper concludes with a discussion of the methodological limitations of these studies: the use of self-reports, lack of distinction between intellectual and academic achievement, not enough investigation of other kinds of achievement, and relatively little available data on the father-child relationship. The author makes recommendations concerning these and other methodological problems in this area of research. (Author/SJL)

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THE RELATIONSHIP BETWEEN THE PARENTAL WARMTH-HOSTILITY DIMENSION AND THE DEVELOPMENT OF ACHIEVEMENT ORIENTATION IN MALES AND FEMALES

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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THE RELATIONSHIP BETWEEN THE PARENTAL WARMTH-HOSTILITY DIMENSION AND THE DEVELOPMENT OF ACHIEVEMENT ORIENTATION IN MALES AND FEMALES

I. Introduction

How does parental warmth affect children's achievement motivation and behavior? Do boys and girls react differently to parental warmth in terms of the development of achievement motivation? Does parental affection have different meanings for children's achievement when that affection is evidenced in a controlling environment and in a permissive environment? These are some of the questions which have been addressed in recent studies. These questions are important, because parental socialization during childhood has long-term effects on achievement. (Stein & Bailey, 1973; Crandall & Battle, 1970; Kagan & Moss, 1962; Crandall, 1963).

The purpose of the present paper is to summarize and discuss some of the studies which relate parental attributes (especially warmth) to children's achievement orientations. By achievement orientations we mean both achievement motivation and achievement behavior. Sex differences will be pointed out whenever possible.

The warmth-hostility or warmth-rejection dimension is one of two main parental dimensions which have continually arisen in factor analyses of child rearing patterns. (Becker, 1964; Schaefer, 1959). The other major dimension, that of permissiveness-restrictiveness, will be considered in this paper only in relation to the warmth-hostility dimension. Becker (1964) proposes that a third major parental dimension should be considered: anxious emotional involvement versus calm detachment. However, not enough research has been done on that dimension to justify its inclusion here.

Before discussing the studies, we will briefly review a few of the major theories of achievement motivation and behavior and then will attempt to describe the two main parental dimensions.

II. Some Theories of Achievement Motivation and Achievement Behavior

Different investigators have used varying definitions of achievement orientation, achievement motivation, and achievement behavior. There has not been complete agreement on definitions, either theoretical or operational, partly because achievement theory is continuing to evolve (as we will discover in some of the presentations this morning).

Crandall (1963) states that most definitions of achievement do manage to agree on the idea that the kinds of situations which characteristically evoke achievement motivation, and in which achievement behaviors will ensue, are those in which competence of performance is the focus. "The aim of achievement behavior is to obtain positive reinforcement for demonstrated competence. . . . Achievement situations invariably contain cues pertaining to some 'standard of excellence' which will define degrees of competence or incompetence." (Crandall, 1963, p. 418).

The best-known theory of achievement motivation was originally proposed by McClelland and his colleagues in their 1953 book, The Achievement Motive. They saw achievement motivation as a relatively stable, generalized personality disposition to strive for success in any situation in which standards of excellence are applicable. This conceptualization (measured mainly by projective methods such as the thematic apperception test) was fairly well supported for males but not for females.

In a later formulation, Atkinson (1964) proposed that achievement motivation (that is, a disposition to seek success) is not the only motivation affecting achievement-oriented behavior; in fact, there is a second, equally important

motive: the motive to avoid failure. Other situation-related factors also influence the individual's achievement behavior, such as expectancy of success and the value or incentive presented by success in a particular activity. Thus, this theory falls into the general class of expectancy-value theories. For the motive to achieve to be aroused, according to this theory, several things must occur:

> . . . The individual must consider himself responsible for the outcome (success or failure), there must be explicit knowledge of results so that the individual knows when he has succeeded, and there must be some degree of risk concerning the possibility of success. (Atkinson, 1964, p. 241).

Another expectancy-value theory of achievement motivation was proposed by the Crandalls (Crandall, Katovsky, & Preston, 1960; Crandall & Battle, 1970). In their model, which applies to all ages and both sexes, achievement behavior is defined as "behavior directed towards attainment of positive reinforcement or avoidance of negative reinforcement (from oneself or from others) specifically for the competence (skill) of one's performance in tasks or situations where standards of excellence are applicable." (Crandall & Battle, 1970, p. 41). In this theory, three determinants of motivation in a given situation are: attainment value, expectancy, and minimal standard of reinforcement.

One of the biggest contributions made by the Crandalls is the idea that achievement motivation could not be seen as a global, unitary variable. In 1960, Crandall, Katovsky, and Preston wrote:

> Research by McClelland and his colleagues, for example, has implicitly employed the concept of n achievement as though achievement motivation, regardless of the area in which it was evoked, was invariant. Contrary to this, our observations suggested that achievement motivation, achievement standards, achievement expectations, and achievement efforts may vary markedly from one achievement area to another. (Crandall, Katovsky, & Preston, 1960, p. 790).

The concept that achievement motivation is more than just one unitary disposition is further elaborated in Veroff's paper, "Varieties of Achievement Motivation" (1975), in which six types of achievement motivation are distinguished. These six types are based interactively on whether the individual emphasizes the process of having achieved or the impact of the accomplishment, and on where the person derives his standards of excellence (in himself, in some social reference, or in an impersonal task demand).

Sex differences in achievement motivation have always been confusing to theorists; in 1958, Atkinson referred to sex differences as "perhaps the most persistent unresolved problem in research on n achievement." That statement was in a footnote to Atkinson's enormous compilation of available theory and data on achievement motivation--the only mention of female achievement motivation in the entire book, as Horner (1968) points out.

Many theorists, such as Crandall (1963), have postulated that the reasons for achievement behavior may vary for males and females. Crandall states (1963, pp. 438-9):

> Approval and affection from others may more often be ultimate goals of girls' achievement efforts, while achievement qua achievement appears to be the more characteristic aim of boys' achievement behaviors. In other words, girls' achievement activities and striving seem to be more "other-directed," while those of boys are more autonomously determined by their own internal standards and their need of self-approval.

Veroff (1969) also proposes that females' achievement motivation is more dependent on external social cues and rewards than that of boys. As summarized by Stein and Bailey (1973, p. 349), Veroff's

> . . . initial stage for both sexes is autonomous achievement motivation, a period in which the child learns to evaluate his performance against his own standards. The second step is social comparison achievement motivation during which the child learns to compare his or her performance with others. Finally, these two types of motivation are thought to be integrated. He proposed that females pass through this developmental sequence more slowly than males and less often reach the final stage of integration. . . .

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In their theory of sex differences, Garai and Scheinfeld (1968, p. 270) propose that from early childhood on males appear to have greater achievement needs directed toward successful task accomplishment, while females exhibit greater affiliative social needs directed toward successful interpersonal relations. According to Garai and Scheinfeld, males seem to possess "intrinsic" achievement motivation which finds its main satisfaction in the successful accomplishment of the task itself, whereas females appear to be guided by "extrinsic" achievement motivation which makes them derive greater satisfaction from praise and recognition from others.

Stein and Bailey (1973, p. 350) disagree with theories which consider females' achievement behavior to be instigated primarily by affiliation motives or desire for social approval per se. These two investigators propose that social skills and interpersonal relations are a central area of achievement concern (not just affiliation concern) for many females. They state (p. 350), "females are not necessarily more sensitive to social approval," and "females' achievement orientations are likely to be manifested in areas which represent culturally defined sex-appropriate activities," such as social skills.

Horner (1968) was the first to postulate and test the now well-known motive to avoid success, defined as the disposition to become anxious about achieving because of the expected negative consequences of success. This motive was found mainly among females in competitive achievement-oriented situations, particularly those involving competition against males. The motive to avoid success is seen to be associated in large part with affiliation concerns, such as fear of being socially rejected because of success.

There are many other aspects of achievement motivation and behavior, such as attribution for success and failure, level of aspiration, and task persistence. Those aspects will not be dealt with in this extremely brief overview of theories of achievement orientation. The attempt here is to convey some of the diversity of thinking which characterizes past and present research on achievement motivation and achievement behavior. It is now time to describe the two main parental dimensions, warmth-hostility and permissiveness-restrictiveness.

III. Descriptions of the Two Main Parental Dimensions

Though many of the studies which will be discussed here use rather different definitions of aspects of the two major parental dimensions, nevertheless it is possible to mention certain commonalities. To describe these dimensions, we will turn to Becker (1964, p. 174):

> The warmth versus hostility dimension is defined at the warm end by variables of the following sort: accepting, affectionate, approving, understanding, child-centered, frequent use of explanations, positive response to dependency behavior, high use of reasons in discipline, high use of praise in discipline, low use of physical punishment, and (for mothers) low criticism of husband. The hostility end of the dimension would be defined by the opposite characteristics. The restrictiveness versus permissiveness dimension is defined at the restrictive end by: many restrictions and strict enforcement of demands in the areas of sex play, modesty behavior, table manners, toilet training, neatness, orderliness. care of household furniture, noise, obedience, aggression to sibs, aggression to peers, and aggression to parents.

Becker emphasizes that the two dimensions are relatively independent of each other, that is, they appear orthogonal when examined factor analytically. He explains,

> By independent, we mean that on the average restrictive (or permissive) parents are neither predominantly hostile nor warm, but can show all degrees of warmth and hostility. (Becker, 1964, p. 176).

To express it another way, the fact that a parent is permissive rather than restrictive does not necessarily predict whether that parent is warm or hostile toward the child.

> Parent behavior is not unidimensional; it does not consist simply of variations along a single axis, as popular oversimplifications . . . sometimes seem to imply. Parents may love their children, or they may reject them. They may also, however, be loving and controlling, or loving and permissive; rejecting and controlling, or rejecting and permissive. The response of the child will not depend simply on one aspect of the parents' behavior and personality, but rather on the combined effect of many aspects. (Mussen, Conger, & Kagan, 1969, p. 483).

Having examined some of the achievement theories and having described the two main child-rearing dimensions, we are now ready to look at some studies concerning the effects of the warmth-hostility dimension on children's achievement orientations. The permissiveness-restrictiveness dimension will be touched upon very briefly in those studies in which that dimension interacts with the warmth-hostility dimension.

IV. Achievement Studies Related to the Warmth-Hostility Dimension

The warmth-hostility or warmth-rejection dimension is perhaps the most widely studied dimension of parent-child relationships. (Maccoby & Jacklin, 1974). However, much work remains to be done in the area of the effects of parental warmth on children's achievement motivation and behavior. More studies have been done on parental influences on children's achievement behaviors than on parental influences on children's achievement motivations. (Crandall, 1963).

As we will see, a main theme running through most of the results of achievement studies is that extremely high levels of early maternal warmth and nurturance appear to have a detrimental effect on females' achievement orientations, though not on those of males. It seems that moderate maternal warmth (or even slight hostility) fosters achievement orientation in girls, while high

maternal nurturance and affection are associated with strong achievement orientations in boys. Warmth is more often correlated with males' than with females' achievement orientations (Crandall, 1963). In contrast, parental permissiveness or absence of maternal intrusiveness may be a more important factor for girls than for boys in terms of development of achievement orientation (Maccoby, 1966; Stein & Bailey, 1973).

Veroff (1969) suggests that the development of a girl's achievement motive requires a somewhat rejecting attitude by the mother when the girl is young, an appropriate timing of stress and mastery in middle childhood, her acceptance of the appropriateness of female achievement, a female role-model who is not too strong or domineering, and not too strong an emphasis on interpersonal gratification during early childhood.

Crandall (1963) states that the results of research concerning parental influences on boys' achievement motivation are somewhat contradictory. Two of the earliest studies in this area (both by McClelland et al., 1953) have conflicting results. Both studies used projective techniques for measuring n achievement, and the subjects' own ratings of their parents were the only measure of parental behaviors. College males with a high achievement need rated their fathers and mothers as more rejectant than did college males who were lower in achievement need. In contrast, high school boys with strong achievement motivation rated their fathers as less rejectant than did their low n achievement peers.

Rosen and D'Andrade (1959) studied both achievement motivation and achievement behavior of boys between the ages of nine and eleven, as well as the attributes of parents of the low and high achieving boys. Parents of the highly achievement-motivated boys held higher aspirations, standards,

and expectations for their sons' performances than did parents of boys with lower need for achievement. Mothers of high n achievers differed from mothers of low n achievers in being more rewarding and "pushy;" in contrast, their husbands gave their sons more autonomy. The mothers but not the fathers were likely to reward their sons with warmth and approval, but they also tended to punish with hostility and rejection. Garai and Scheinfeld (1968, p. 234) remark:

> This particular combination of affectionate maternal warmth or nurturance with the threat of withdrawal of maternal love as a punishment for failure or inadequate performance distinguishes the mothers of highly motivated boys from those of boys with low motivation.

Winterbottom (1958) also studied child-training procedures used by mothers of preadolescent boys who were high and low in achievement motivation. She found that early independence training by mothers influenced their sons to have higher need for achievement and more independence. Also, mothers of high n achieving boys were more likely to demonstrate physical affection when a demand for achievement had been fulfilled.

Crandall, Dewey, Katovsky, and Preston (1964) found that the parents' attitudes and behaviors were associated with their daughters' performances on achievement tests much more frequently than with those of their sons. Girls who were competent readers had both less affectionate and less nurturant mothers than did the girls who demonstrated less reading proficiency. In addition, girls who performed better on the arithmetic achievement test had mothers who were relatively low on nurturance. The more proficient girls had fathers who more often praised and less often criticized their everyday intellectual achievement attempts. Crandall _et al._ offer some possible reasons why low maternal nurturance and affection seem to foster academic competence

in girls: (1) Girls who did not receive as much maternal affection might have turned to achievement as a source of satisfaction and security. (2) Previous research has shown that maternal nurturance fosters children's dependence and impedes the development of independence and achievement behaviors. (3) The less nurturant mother might be more involved with her own achievement and thus might be an achieving role model for her daughter.

The question remains as to why more significant relations obtained between parents' attitudes and behaviors and their daughters' academic performance than occurred between these parental attitudes and behaviors and the boys' performance. The investigators in this study offer the hypothesis that grade-school boys may differ from girls in their susceptibility to adult influence. Girls' achievement efforts might be directly related to their desire for adult approval, while boys' achievement behaviors might be more autonomously determined.

As we have just seen, Crandall et al. (1964) found parental behaviors and attitudes to be correlated with achievement-test performance for girls but not for boys. In contrast to the Crandall findings, Bayley and Schaefer (1964) discovered that maternal behavior predicts a number of later-developing characteristics for boys, but few for girls. Maccoby (1966, pp. 37-8) notes that the Crandall measures were concurrent while the Bayley and Schaefer measures were predictive over several years. Maccoby also states that it is difficult to tell from these conflicting findings whether the effects of early socialization are more lasting for one sex than for the other.

As pointed out by Maccoby (1966, p. 38), the two studies do show some consistencies, however. Both studies reveal that the absence of maternal intrusiveness is a more important factor in the intellectual development of girls

than of boys, while warmth and close attentiveness are positive factors only for boys.

In the Bayley and Schaefer report, mothers who were affectionate, accepting, egalitarian, and autonomy-granting in relation to their sons tend to have happy, calm sons who make below average mental scores in the first years but gain rapidly in the next years so that by age five and thereafter they are more likely to have high IQs. Hostile, punitive, and rejecting maternal behavior is related to active, unhappy, negative, and responsive-to-person boy babies who have high intelligence scores at first and lower IQs after age four. This relationship did not occur for girls, whose later IQs and achievement were more related to demographic or genetic factors (parents' education, fathers' occupational level, mothers' intelligence).

Kagan and Moss (1962) in their longitudinal Fels study found that the pattern most likely to lead to involvement in intellectual achievement in the boy is early maternal protection, followed by encouragement and acceleration of mastery behaviors. For girls the pattern was completely different. Early protection of girls was related to adult passivity and feminine interests. Maternal hostility toward the daughter during the first three years, together with acceleration during age six to ten, were associated with adult intellectual mastery in the woman. Kagan and Moss point out that a high rating on maternal hostility in this study does not typically refer to the more severe forms of rejection; it indicates instead a generally critical attitude toward the child. A mother with a low hostility rating in this study accepted her children rather uncritically. These researchers note the danger in attributing a cause-and-effect relationship between maternal hostility and daughters' achievement.

> The danger of attributing causality to correlations between maternal treatment and child behavior is illustrated in the positive association between maternal hostility and the girls' achievement behavior. On the basis of existing theory and empirical data, it would be fallacious to conclude that maternal hostility is essential for or leads to intellectual mastery. In the present sample, those mothers who were critical of their daughters during Period 1 [age 0-3] and exerted acceleratory pressures on them were intellectually competitive role models. It is suggested that this combination of maternal traits and practices, and their timing in the girls' development, are both critical in the development of intellectual mastery in the girl. (Kagan & Moss, 1962, p. 222).

Crandall and Battle (1970) studied two related types of achievement effort which are usually lumped together: academic and intellectual achievement behaviors. To these two scientists, intellectual achievement effort means behaviors which exercise, maintain, or increase knowledge or intellectual skills in activities that are not demanded by the individual's vocation, academic status, or other pragmatic demands of his situation. Academic achievement effort, in contrast, is a kind of effort which is required by the individual's vocation or academic status. This study shows that academically striving (as opposed to intellectually striving) adults of both sexes were, as children, dependent, adult-oriented, alienated from their peers, and especially sensitive to socialization influences. These investigators feel that academically striving adults may continue to engage in academic achievement efforts in order to obtain reinforcement from others in the general culture rather than to gain self-approval or self-satisfaction.

Intellectual-effort males appeared nonconformist from earliest childhood, while intellectually striving girls' nonconformity (as shown in resistance to parental demands) did not occur until adolescence. Intellectually oriented males and females had mothers who were cooler and less nurturant to them than did academically ambitious males and females. An interesting note is that

mothers of intellectual males were quite inaccessible and oblivious to their sons during the early years but became more affectionate when their sons reached school age. Intellectual-effort females saw their fathers as relatively more rejecting and detached from them than did their low-effort peers.

The biggest sex difference which was found by Crandall and Battle was the fact that high-achieving females (regardless of whether their achievement was intellectual or academic) actively avoided achievement tasks during their early years of life, while neither intellectual-effort nor academic-effort males showed this pattern. "High adult effort girls withdrew [from early achievement tasks]; high adult effort males approached." (Crandall & Battle, 1970, p. 79). Crandall and Battle note that this fact throws into doubt the assumption held by McClelland and others that successful early mastery attempts are universally necessary to later achievement development.

Several more studies lend support to the hypothesis that high levels of early maternal warmth have a negative relationship to girls' achievement motivations and behaviors (but not to boys'). Douvan and Adelson (1966) found that "unambivalent feminine girls," i.e., girls who showed little motivation for personal achievement and whose main concern was marriage, had a close, warm dependent relationship to their parents. In contrast, achievement-oriented girls had pleasant but not close relationships with their families.

In a study cited by Mussen, Conger, and Kagan (1969, p. 362), a similar finding appeared: femininity (as judged by a test of sex-role preferences) in preschool girls seemed to be related to warm, nurturant mother-daughter interactions. In comparison with other girls, highly feminine, appropriately sex-typed girls portrayed their mothers in doll play as significantly warmer, more nurturant, affectionate, and gratifying. Their mothers also reported that

highly feminine girls have more intense and warmer relations with their mothers than the less feminine girls do.

Mischel (1970) also found that high levels of maternal nurturance typically generate femininity for girls. "Femininity" as used here refers to the feminine sex-role patterns of dependency, passivity, and conformity. Mussen, Conger, and Kagan (1969, p. 505) indicate that a majority of studies report the trio of dependency, conformity, and passivity to be more common in females than in males, particularly at older ages.

One study (Crandall, Preston, & Rabson, 1960) presents results which conflict with the general finding that maternal warmth has a strong relationship to achievement orientations of children. In this study, neither general maternal affection nor maternal nurturance was predictive of children's achievement efforts in nursery school free play. However, the mothers' direct rewarding of children's achievement behaviors was positively related to the level of those efforts in free play.

Mussen, Conger, and Kagan hypothesize that identification generally stems from warm parent-child relationships (1969, p. 362). As evidence, they present the findings of the Mussen and Distler study (1959), in which preschool boys were classified according to their sex-role preferences. The most masculine boys presumably identified with their fathers more than did the least masculine boys. When asked their perceptions of their fathers, the responses of the highly masculine boys indicated that they perceived their fathers as more nurturant and rewarding than do boys low in masculinity. The mothers of the highly masculine boys also reported that the boys' fathers were warmer, more affectionate, and more interested in their sons than the

fathers of less masculine boys.

Some experimental studies have also found that adult nurturance is related to identification and the tendency to imitate the nurturant model's behavior (Mussen & Parker, 1965; Bandura & Huston, 1961; Hartup, 1958). The Hartup study pointed to a possible cross-sex influence of adult nurturance on preschool children, with boys valuing nurturance from a female and girls being more affected by nurturance from a male.

However, other experimental studies have found that relatively low levels of nurturance are conducive to acquisition of achievement-oriented behaviors. For example, Mandel (1968) discovered that preschool children were more persistent on a task when the experimenter was nonnurturant than when she was nurturant. It would seem that more work needs to be done to iron out the conflicts in the area of adult nurturance as related to children's achievement behaviors.

If, as has been repeatedly shown here, high maternal warmth is negatively associated with achievement orientation in females and positively related to achievement orientation in males, what about the other end of the continuum--extreme maternal hostility? Unfortunately, few achievement studies have actually dealt with the effects of the most severe forms of rejection. In studies where the terms "hostility" and "rejection" are used, they generally refer to a pervasively critical attitude of the parent toward the child, rather than to overt rejection (e.g., Kagan & Moss, 1962). Crandall and Battle (1970) point out that all subjects in their study perceived their parents as more accepting than rejecting, although some groups saw their parents as relatively more rejecting than did others.

Although there is not much direct evidence concerning effects of extreme parental hostility on children's achievement orientation, Stein and Bailey (1973) present the plausible hypothesis that extreme hostility, like extreme warmth, is associated with low achievement behavior in females. That would mean there is a curvilinear relationship between maternal warmth and girls' achievement. The curvilinearity hypothesis needs to be tested for both sexes. It is possible that it might be true for girls but not for boys, in light of high-achieving boys' tendency to have very warm mothers. Also, it is unclear whether the proposed curvilinear relationship of parental warmth to a child's achievement orientation would be the same for mother-child and father-child relationships. Possible cross-sex effects have already been alluded to (Hartup, 1958).

As we have seen, most of these studies reveal that the warmth-hostility dimension operates differently upon the achievement orientations of girls and boys. Boys' achievement orientations tend to thrive on early, high maternal affection, while girls' achievement orientations do not. However, as earlier noted, it is dangerous to pose overly simplistic cause-and-effect relationships, such as "maternal hostility causes strong achievement orientations in girls." Factors such as identification with role models and the degree of permissiveness or restrictiveness should also be considered. Also, general sex-typing encouraged by our culture has an influence on the development of achievement orientation. In American culture, as in most societies, achievement is more often stressed in the training of boys than of girls (Crandall, 1963; Mussen, Conger, & Kagan, 1969).

We have just discussed some of the studies in the area of parental influences on children's achievement orientations. We will now turn to

some unresolved problems in this research area and will mention a few profitable directions which future research might take.

V. General Critique of Studies and Directions for Future Research

There remain many unsolved methodological problems in the study of achievement orientation as related to the parental dimension of warmth-hostility. Some of these problems are: (1) Self-reports by parents and ratings by children of their parents are often distorted and inaccurate. (2) In most studies, the range of warmth-hostility dimension is too small to show the effects of extreme hostility. (3) The distinction between intellectual and academic achievement efforts is not often made. (4) Other kinds of achievement, such as social, political, and mechanical, are rarely studied as achievements and rarely included in investigations of antecedents of achievement behaviors. (5) Researchers use widely differing definitions of certain variables, thus making results difficult to compare and interpret. (6) Many studies dealing with the warmth-hostility dimension do not explore the other major parental dimension, permissiveness-restrictiveness, although more meaningful results might be obtained if the interactive effects of the two dimensions were studied. (7) Relatively little data is available on the fathers' behaviors and relationships with their children. (8) Most studies are limited to white, middle-class subjects.

To solve some of these problems, researchers might make great efforts to conduct more longitudinal studies with observational components; to study the effects of extreme hostility in order to test the curvilinearity hypothesis proposed by Stein and Bailey (1973); to distinguish between intellectual and academic achievement and to expand the definition of achieve-

ment so that it includes a variety of types of effort. Investigators might also try to reach consensus on definitions of home variables and might replicate past studies for the purpose of validating findings. Hopefully, more studies will be devoted to the interactive effects of the two main parental dimensions and of other contributing factors. Future research might find ways to gather the elusive but essential information on father-child relationships, and certainly researchers should increase their efforts aimed at studying subjects of various social, racial, and economic groups. By these means, researchers may begin to answer some of the questions which still remain about parental influences on children's achievement orientations.

BIBLIOGRAPHY

Atkinson, J. W. An introduction to motivation. Princeton: Van Nostrand, 1964.

Atkinson, J. W. (Ed.) Motives in fantasy, action, and society. Princeton: Van Nostrand, 1958.

Atkinson, J. W., & Feather, N. T. (Eds.) A theory of achievement motivation. New York: Wiley, 1966.

Bandura, A., & Huston, A. C. Identification as a process of incidental learning. Journal of Abnormal and Social Psychology, 1961, 63, 311-318.

Bardwick, J. The psychology of women. New York: Harper & Row, 1971.

Baumrind, D. Child care practices anteceding three patterns of preschool behavior. Genetic Psychology Monographs, 1967, 75, 43-88.

Baumrind, D. Current patterns of parental authority. Developmental Psychology, 1971, 4 (1, Pt. 2).

Baumrind, D., & Black, A. E. Socialization practices associated with dimensions of competence in preschool boys and girls. Child Development, 1967, 38, 291-327.

Bayley, N., & Schaefer, E. S. Correlations of maternal and child behaviors with the development of mental abilities: Data from the Berkeley Growth Study. Monographs of Society for Research in Child Development, 1964, 29, no. 6.

Becker, W. C. Consequences of different kinds of parental discipline. In M. L. Hoffman & L. W. Hoffman (Eds.), Review of child development research. Vol. 1. New York: Russell Sage, 1964.

Bronfenbrenner, U., & Ricciuti, H. N. The appraisal of personality characteristics in children. In P. H. Mussen (Ed.), Handbook of research methods in child development. New York: Wiley, 1960.

Clarke-Stewart, K. A. Interactions between mothers and their young children: characteristics and consequences. Monographs of Society for Research in Child Development, 1973, 38, no. 153.

Crandall, V. C. Personality characteristics and social and achievement behaviors associated with children's social desirability response tendencies. Journal of Personality and Social Psychology, 1966, 4, 477-486.

Crandall, V. C. Sex differences in expectancy of intellectual and academic reinforcement. In C. P. Smith (Ed.), Achievement-related motives in children. New York: Russell Sage, 1969.

Crandall, V. C., Katovsky, W., & Crandall, V. J. Children's beliefs in their own control of reinforcements in intellectual-academic achievement situations. Child Development, 1965, 36, 91-109.

Crandall, V. J. Achievement. In H. W. Stevenson (Ed.), Child psychology: Sixty-second yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press, 1963.

Crandall, V. J., Dewey, R., Katovsky, W., & Preston, A. Parents' attitudes and behaviors and grade-school children's academic achievements. Journal of Genetic Psychology, 1964, 104, 53-66.

Crandall, V. J., Katovsky, W., & Preston, A. A conceptual formulation for some research on children's achievement development. Child Development, 1960, 31, 787-797.

Crandall, V. J., Katovsky, W., & Preston, A. Motivational and ability determinants of children's intellectual achievement behaviors. Child Development, 1962, 33, 643-661.

Crandall, V. J., Preston, A., & Rabson, A. Maternal reactions and the development of independence and achievement behavior in young children. Child Development, 1960, 31, 243-251.

Crandall, V. J., & Rabson, A. Children's repetition choices in an intellectual achievement situation following success and failure. Journal of Genetic Psychology, 1960, 92, 161-168.

Crowne, D. P., Conn, L. K., Marlowe, D., & Edwards, C. N. Some developmental antecedents of level of aspiration. Journal of Personality, 1969, 37, 73-92.

Douvan, E., & Adelson, J. The adolescent experience. New York: Wiley, 1966.

Garai, J. E., & Scheinfeld, A. Sex differences in mental and behavioral traits. Genetic Psychology Monographs, 1968, 77, 169-299.

Hartup, W. W. Nurturance and nurturance-withdrawal in relation to the dependency behavior of preschool children. Child Development, 1958, 29, 191-201.

Horner, M. S. Sex differences in achievement motivation and performance in competitive and non-competitive situations. Unpublished Ph.D. dissertation, University of Michigan, 1968.

Kagan, J., & Moss, H. A. Birth to maturity. New York: Wiley, 1962.

Katovsky, W., Preston, A., & Crandall, V. J. Parents' attitudes toward their personal achievements and toward the achievement behaviors of their children. Journal of Genetic Psychology, 1964, 104, 67-82.

Maccoby, E. E. Sex differences in intellectual functioning. In E. E. Maccoby (Ed.), The development of sex differences. Stanford: Stanford University Press, 1966.

Maccoby, E. E., & Jacklin, C. N. The psychology of sex differences. Stanford: Stanford University Press, 1974.

Mandel, S. L. Nurturance, persistence, and distraction in preschool children. Dissertation Abstracts, 1968, 29 (5-B), 1845.

McClelland, D. C., Atkinson, J. R., Clark, R. A., & Lowell, E. L. The achievement motive. New York: Appleton-Century-Crofts, 1953.

Medinnus, G. R., & Johnson, R. Child and adolescent psychology: Behavior and development. New York: Wiley, 1969.

Mischel, W. Sex-typing and socialization. In P. H. Mussen (Ed.), Carmichael's manual of child psychology. New York: Wiley, 1970.

Moss, H. A., & Kagan, J. The stability of achievement and recognition seeking behaviors. Journal of Abnormal and Social Psychology, 1961, 62, 504-513.

Mussen, P. H., Conger, J. J., & Kagan, J. Child development and personality. 3rd Edition. New York: Harper & Row, 1969.

Mussen, P., & Distler, L. Masculinity, identification, and father-son relationships. Journal of Abnormal and Social Psychology, 1959, 59, 350-356.

Mussen, P., & Distler, L. Child rearing antecedents of masculine identification in kindergarten boys. Child Development, 1960, 31, 89-100.

Mussen, P., & Parker, A. Mother nurturance and girls' incidental imitative learning. Journal of Personality and Social Psychology, 1965, 2, 94-97.

Rosen, B. C., & D'Andrade, R. The psychological origins of achievement motivation. Sociometry, 1959, 22, 185-218.

Schaefer, E. S. A circumplex model for maternal behavior. Journal of Abnormal and Social Psychology, 1959, 59, 226-235.

Sears, R. R., Maccoby, E. E., & Levin, H. Patterns of child rearing. Evanston: Row, Peterson & Co., 1957.

Stein, A. H., & Bailey, M. M. The socialization of achievement orientation in females. Psychological Bulletin, 1973, 80, 345-366.

Veroff, J. Social comparison and the development of achievement motivation. In C. P. Smith (Ed.), Achievement-related motives in children. New York: Russell Sage, 1969.

Veroff, J. Varieties of achievement motivation. Paper read at 1975 Annual Meeting of the American Education Research Association, Washington, D. C., April 3, 1975.

Winterbottom, M. The relation of need for achievement in learning experiences in independence and mastery. In J. W. Atkinson (Ed.), Motives in fantasy, action, and society. New York: Van Nostrand, 1958.